

## CLAIMS

1. A sensor for sensing precursor seismic activity comprising a sensor including at least one wire arranged in a pattern that results in a decreased net electromagnetic reaction than would result from said at least one wire aligned in substantially co-linear loops from an electromagnetic source external to said sensor.

2. The sensor of claim 1 wherein said at least one wire is said arranged in a looped manner.

3. The sensor of claim 1 wherein said wire is arranged in a pattern wherein the wire has a plurality of co-linearly aligned portions having opposing electromagnetic fields.

4. The sensor of claim 3 wherein a plurality of said portions are each less than five percent of the total length of said wire.

5. The sensor of claim 3 wherein said pattern includes at least one twisted pair of adjacent said at least one wire.

6. The sensor of claim 1 wherein said at least one wire is arranged in a manner such that a major portion of the length of said at least one wire is not substantially parallel to said at least one wire.

7. A sensor for sensing precursor seismic activity comprising a sensor including at least one wire arranged in a first pattern having a first resistance and said at least one wire arranged in a second pattern having a second resistance, wherein said first resistance is less than said second resistance.

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8. The sensor of claim 7 wherein said at least one wire of said first pattern is arranged in a pattern that results in a decreased net electromagnetic reaction than would result from said at least one wire aligned in substantially co-linear loops from an electromagnetic source external to said sensor.

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9. The sensor of claim 8 wherein said at least one wire of said second pattern is arranged in a pattern of co-linear loops.

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10. The sensor of claim 7 wherein said first pattern has a smaller average diameter than the average diameter of said second pattern.

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11. The sensor of claim 7 wherein said first pattern and said second pattern are electrically connected in parallel to each other.

12. A method of detecting precursor seismic activity comprising:  
(a) imposing a first signal across a conductive material as a result of sensing said precursor seismic activity;

- (b) sensing a second signal across said conductive material at a location spaced apart from the location of said imposing of said first signal.

5                    13.    The method of claim 12 wherein said conductive material is interconnected to a uniform potential.

14.    The method of claim 13 wherein said potential is ground.

10                   15.    The method of claim 12 wherein said imposing and said sensing and said imposing are substantially symmetrically connected to said conductive material.

15                   16.    A method of detecting a fault comprising sensing precursor seismic activity with a moving sensor by determining significant changes in statistical variations of a signal from said sensor.

17.    The method of claim 16 wherein said significant change is ringing.

20                   18.    A method of determining the general latitude of a fault comprising associating a frequency component of a signal sensed by a sensor with said general latitude.

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19. The method of claim 18 wherein said signal is a ringing.

20. The method of claim 18 wherein said frequency is the general  
predominant frequency of said signal.

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